

What is claimed is:

- 1 1. A method of establishing a communication connection between a first
2 terminal and a second terminal, wherein the first and second terminals are configured for
3 communicating over a primary network, the method comprising:
4 receiving at a dial-out unit a first call setup message from the first terminal over a
5 first signaling channel, the first call setup message including an identifier of the second
6 terminal;
7 determining whether to establish a communication session between the first and
8 second terminals over an alternative network based on the identifier of the second terminal;
9 outputting from the dial-out unit to a dial-in unit, over a data channel, the identifier
10 of the second terminal; and
11 outputting from the dial-in unit to the alternative network, over a second signaling
12 channel, a second call setup message and the identifier of the second terminal.
- 1 2. The method of claim 1, wherein the alternative network is an asynchronous
2 transfer mode (ATM) network.
- 1 3. The method of claim 2, wherein the primary network is an integrated
2 services digital network (ISDN).
- 1 4. The method of claim 2, wherein the first and second signaling channels are
2 ISDN D-channels and the data channel is an ISDN B-channel.
- 1 5. The method of claim 4, further comprising:
2 receiving from the alternative network, over the second D-channel, a D-channel
3 connection message indicating that a connection with the second terminal is established;
4 sending a B-channel connection message over the B-channel to the dial-out unit in
5 response to receiving the D-channel connection message; and
6 sending a D-channel connection message from the dial-out unit to the first terminal
7 in response to the B-channel message for indicating to the first terminal that a connection
8 is established with the second terminal.

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1 6. The method of claim 1, wherein the first and second terminals conform to
2 ITU-T Recommendation H.320.

1 7. The method of claim 1, further comprising outputting from the dial-out unit,
2 over the data channel, an identifier of the dial-out unit, determining, based on the identifier,
3 if the dial-out unit is authorized to use the alternative network, and wherein the dial-out
4 unit outputs the second call setup message only if the dial-out unit is determined to be
5 authorized to use the alternative network.

1 8. A method of establishing a communication connection over an alternative
2 network between first and second terminals configured for communicating over a primary
3 network, comprising:
4 receiving a first call setup message on a first signaling channel, the first call setup
5 message containing an identifier for communicating with the second terminal;
6 determining if the identifier in the first call setup message corresponds to
7 predetermined location information;
8 initiating the sending of a second call setup message to the alternative network in
9 response to determining that the identifier in the call setup message corresponds to the
10 predetermined location information;
11 bridging the first and second signaling channels with a data channel;
12 receiving over the data channel call setup information from the alternative network
13 concerning the second terminal; and
14 outputting said call setup information over the first signaling channel to the first
15 terminal.

1 9. The method of claim 8, wherein the primary network is an integrated
2 services digital network (ISDN).

1 10. The method of claim 9, wherein the alternative network is an asynchronous
2 transfer mode (ATM) network.

1 11. The method of claim 9, wherein the first and second signaling channels are
2 ISDN D-channels, and the data channel is an ISDN B-channel.

1 12. The method of claim 9, wherein the identifier is an ISDN destination
2 address of the second terminal.

1 13. The method of claim 8, wherein the first and second terminals are video
2 codec units conforming to ITU-T Recommendation H.320.

1 14. The method of claim 8, wherein the identifier in the call setup message is an
2 address of the second terminal.

1 15. The method of claim 14, wherein the address of the second terminal
2 includes a country code and said address is determined to correspond to the predetermined
3 location information if the country code corresponds to a country serviced by the
4 alternative network.

1 16. An apparatus for establishing a call between a first terminal and a second
2 terminal, wherein at least the first terminal is configured for communicating over a primary
3 network, by using an alternative network, the apparatus comprising:
4 a terminal port suitable for connecting to the first terminal;
5 a network port suitable for connecting to a local network;
6 a network protocol unit connected to the terminal and network ports;
7 a processor connected to the network protocol unit; and
8 a memory unit connected to the processor, wherein the memory unit includes:
9 an alternative network address storage area configured for storing at least one
10 address for communicating with the alternative network;
11 a service location storage area configured for storing at least one indicator of a
12 location serviced by the alternative network; and
13 an instruction area having stored therein instructions for controlling the processor
14 to determine, based on an identifier of the second terminal contained in a call setup
15 message received from the first terminal by way of the terminal port, if the alternative
16 network services an area in which the second terminal is located; output from the network
17 port a call setup message addressed to the alternative network in response to determining
18 that the alternative network services an area in which the second terminal is located; and
19 output from the network port an address of the second terminal.

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1 17. The apparatus of claim 16, wherein the instruction area has further
2 instructions stored therein for controlling the processor to output a connect message to the
3 terminal port for indicating to the first terminal establishment of a connection with the
4 second terminal.

1 18. The apparatus of claim 16, wherein the primary network is an integrated
2 service digital network (ISDN).

1 19. The apparatus of claim 18, wherein the secondary network is an
2 asynchronous transfer mode (ATM) network.

1 20. The apparatus of claim 18, wherein the call setup message received by the
2 terminal port is received over an ISDN D-channel, and the call setup message and address
3 of the second terminal output from the network port are output over an ISDN B-channel.

1 21. The apparatus of claim 16, wherein the instruction area has further
2 instructions stored therein for controlling the processor to receive changes to said at least
3 one indicator of a location serviced by the alternative network.

1 22. The apparatus of claim 21, wherein the instruction area has further
2 instructions stored therein for controlling the processor to receive changes to said indicator
3 of a location serviced by the alternative network.

1 23. The apparatus of claim 16, wherein the apparatus is an ISDN dialer.

1 24. The apparatus of claim 16, wherein the instruction area includes instructions
2 for controlling the processor to output an indicator of the identify of the apparatus.

1 25. A computer-readable medium of instructions, suitable for use in a device
2 for establishing a call between a first terminal and a second terminal, wherein at least the
3 first terminal is configured for communicating over a primary network, by using an
4 alternative network, the computer-readable medium of instructions comprising:

5 program instructions for determining, based on an identifier of the second terminal
6 contained in a call setup message received from the first terminal by way of the terminal
7 port, if the alternative network services an area in which the second terminal is located;
8 program instructions of outputting from the network port a call setup message
9 addressed to the alternative network in response to determining that the alternative network
10 services an area in which the second terminal is located; and
11 program instructions for outputting from the network port an address of the second
12 terminal.

1 26. The computer-readable medium of instructions of claim 25, wherein the
2 primary network is an integrated services digital network (ISDN) and the alternative
3 network is an asynchronous transfer mode (ATM) network.

1 27. The computer-readable medium of instructions of claim 25, wherein the call
2 setup message is output on an ISDN D-channel, and the address of the second terminal is
3 output on an ISDN B-channel.

1 28. The computer-readable medium of instructions of claim 25, wherein the
2 first and second terminals conform to ITU-T Recommendation H.320.

1 29. The computer-readable medium of instructions of claim 25, wherein the
2 identifier in the call setup message is an address of the second terminal.

1 30. The computer-readable medium of instructions of claim 29, wherein the
2 address of the second terminal includes a country code and said alternative network is
3 determined to service an area in which the second terminal is located address if the country
4 code corresponds to a country serviced by the alternative network.

1 31. A method of establishing a communication connection over an alternative
2 network between first and second terminals configured for communicating over a primary
3 network, comprising:
4 receiving a call setup message over a signaling channel for establishing a
5 connection with the second terminal over the alternative network;

6 receiving an address of the second terminal over a data channel;
7 sending a message with the address of the second terminal to the alternative
8 network for establishing a connection with the second terminal, in response to receipt of
9 the call setup message; and
10 sending an indication over the data channel that the alternative network has
11 established a connection with the second terminal.

1 32. The method of claim 31, wherein the primary network is an integrated
2 services digital network (ISDN).

1 33. The method of claim 32, wherein the alternative network is an
2 asynchronous transfer mode (ATM) network.

1 34. The method of claim 32, wherein the first and second signaling channels are
2 ISDN D-channels, and the data channel is an ISDN B-channel.

1 35. The method of claim 32, wherein the address is an ISDN destination
2 address of the second terminal.

1 36. The method of claim 31, wherein the first and second terminals conform to
2 ITU-T Recommendation H.320.

1 37. The method of claim 31, wherein the identifier in the call setup message is
2 an address of the second terminal.

1 38. The method of claim 31, further comprising receiving an indicator of the
2 identify of an originator of the call setup message and based on said indicator determining
3 if said originator is authorized to use the alternative network.

1 39. An apparatus for establishing a call between a first terminal and a second
2 terminal, wherein at least the first terminal is configured for communicating over a primary
3 network, by using an alternative network, the apparatus comprising:
4 a local network port suitable for connecting to a local network;

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5 an alternate network port suitable for connecting to a switch in the alternate
6 network;
7 a network protocol unit connected to the local and alternate network ports;
8 a processor connected to the network protocol unit; and
9 a memory unit connected to the processor, wherein the memory unit includes
10 instructions for controlling the processor to extract the second terminal address from a data
11 channel message received via the local network port; outputting from the alternate network
12 port a message containing the address of the second terminal for controlling the alternate
13 network switch to make a connection with the second terminal; outputting from the local
14 network port a message on the data channel indicating establishment of a connection with
15 the second terminal.

1 40. The apparatus of claim 39, wherein the primary network is an integrated
2 services digital network (ISDN).

1 41. The apparatus of claim 40, wherein the alternative network is an
2 asynchronous transfer mode (ATM) network.

1 42. The apparatus of claim 39, wherein the local network is an integrated
2 services digital network (ISDN) and the data channel is an ISDN B-channel.

1 43. The apparatus of claim 40, wherein the address of the second terminal is an
2 ISDN destination address of the second terminal.

1 44. The apparatus of claim 39, wherein the first and second terminals conform
2 to ITU-T Recommendation H.320.

1 45. The apparatus of claim 39, wherein the alternate network port connects to
2 an integrated services digital network (ISDN) and message output from the alternate
3 network port is output over an ISDN D-channel.

1 46. The apparatus of claim 39, wherein the memory unit includes instructions
2 for controlling the processor to determine if an originator of a message containing said
3 second terminal address is authorized to use the alternative network.

1 47. A computer-readable medium of instructions, suitable for use in a device
2 for establishing a call between a first terminal and a second terminal by using an
3 alternative network, wherein at least the first terminal is configured for communicating
4 over a primary network, the computer-readable medium of instructions comprising:
5 program instructions for extracting an address of the second terminal from a
6 received data channel message;
7 program instructions for outputting to a switch of the alternative network a message
8 containing the address of the second terminal for controlling the alternate network switch
9 to make a connection with the second terminal; and
10 program instructions for outputting a data channel message indicating
11 establishment of a connection with the second terminal.

1 48. The computer-readable medium of instructions of claim 47, wherein the
2 primary network is an integrated services digital network (ISDN) and the alternative
3 network is an asynchronous transfer mode (ATM) network.

1 49. The computer-readable medium of instructions of claim 48, wherein the
2 received and output data channel messages are a message received and output on an ISDN
3 B-channel, respectively.

1 50. The computer-readable medium of instructions of claim 47, wherein the
2 first and second terminals conform to ITU-T Recommendation H.320.

1 51. A method of establishing a communication connection over an alternative
2 network between first and second terminals configured for communicating over a primary
3 network, comprising:
4 receiving a first call setup message on a first signaling channel, the first call setup
5 message containing an identifier for communicating with the second terminal;

6 determining if the identifier in the first call setup message corresponds to a
7 predetermined terminal identifier;
8 changing the identifier for communicating with the second terminal with a
9 substitute address for accessing the alternative network;
10 sending a setup message containing the substitute address to the alternative
11 network; and
12 receiving the setup message, translating the substitute address to a the identifier of
13 the second terminal, and establishing a connection with the second terminal over the
14 alternative network.

1 52. The method of claim 51, wherein the primary network is an integrated
2 services digital network (ISDN).

1 53. The method of claim 52, wherein the alternative network is an
2 asynchronous transfer mode (ATM) network.

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